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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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02/107,323 08/20/98 DEWANJEE

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EXAMINER

IM52/0513

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ART UNIT

PAPER NUMBER

1711

DATE MAILED:

05/13/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/137,393

Applicant(s)

Dewanjee et al.

Examiner

Sergent

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-29 is/are pending in the application.
Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-29 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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1.

Claims 1-6, 8-12 and 18-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language, "slow-reacting diamine" and "fast-reacting diamine", renders the claims indefinite, because the terminology is subjective. There is no way of ascertaining the relative or absolute reactivities of the claimed diamines.

2.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear why the word, "any", has been used within line 3. It is unclear how the word further defines "mixtures".

3.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the

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invention.

If applicants intend the polyol species to be polytetramethylene ether glycol, then it should be so claimed. Applicants' terminology is ambiguous.

4.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language, "the golf ball of composition of claim 1..." is not clear. It is unclear why "of composition" has been used.

5.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There appears to be a word omission within line 2, between "said" and "least".

6.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

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failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claims 1, 11 and 13, when reciting the diameter range, applicants have used the language, "about between"; however, it is unclear how "about" modifies "between".

7.

Claims 8, 10, 11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants' use of the word, "high", in referring to the cis polybutadiene rubber renders the claims indefinite, because the language is subjective. What quantitative value is conveyed by the word "high"?

8.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, it is unclear what is meant by "40% active".

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Secondly, the language referring to TDI and PTMEG renders the claim indefinite, because it is unclear if the language is intended to further limit the prepolymer. The issue is analogous to claiming a range within a range. Furthermore, abbreviations should not be used.

Thirdly, it is improper to utilize trade names within the claims, since a trade name does not precisely identify a compound. The compositions denoted by trade names are subject to change.

Lastly, applicants have failed to indicate if the specified ratio is a weight ratio or a mole ratio.

9.

Claims 18-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within lines 3 and 4 of claim 18, it is unclear that the language, "a first and second mold half", refers to "two matingly engageable mold halves".

Furthermore, applicants have referred to the prepolymer as containing the curing agent; however, once the curing agent is added, it is improper to refer to the composition as a prepolymer. Applicants' use of the terminology must be consistent with its use within the art.

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10.

Within the specification, applicants must specify the serial numbers of the parent applications. Furthermore, it is unclear why the first sentence on page 1, has been used.

Applicants need only insert serial numbers within the second sentence of page 1.

11.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.—See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12.

Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3-12 of copending Application No. 09/018,283. Although the conflicting claims are not identical, they are not

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patentably distinct from each other because it would have been obvious to one of ordinary skill to utilize the claimed composition with a core to yield the instantly claimed golf ball. Furthermore, applicants' claimed process is considered to be obvious over the process of 09/018,283, because the instant process differs only in that limitations have been added to adapt the process for use on a conveyor; the use of a conveyor and the attendant alignment equipment is considered to be an obvious design choice.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13.

Claims 1-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 09/030,332. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to golf balls comprising the same urethane cover composition.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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14.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

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15.

Claims 1, 3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Isaac ('568).

Patentee discloses the production of golf balls having polyurethane covers wherein a prepolymer is cured with a blend of diamines having different reactivities. See example 2.

16.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al ('852) or GB 2301291, each in view of Wu ('673) and Isaac ('568) and Presswood ('298).

The primary references disclose the production of thread wound-solid center golf balls wherein the winding and center are comprised of components which are equivalent to those claimed by applicants. See columns 2-5 and tables within Kato et al. See pages 7-9 and examples within GB 2301291.

17.

While the primary references are largely silent regarding the use of polyurethane covers, the use of such covers utilizing applicants' claimed prepolymer and blends of curing agents having different reactivities was known at the time of invention. Wu discloses the use of

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prepolymers based on diisocyanates and polytetramethylene ether glycol and a slow reacting polyamine, such as 3,5-dimethylthio toluene diamine. See column 2. Isaac discloses the use of curing agents having different reactivities for the production of golf ball covers derived from polyurethane prepolymers. See columns 2 and 3.

18.

Though Isaac fails to disclose applicants' specific blend of fast and slow reacting diamines, the use of blends of diethyl toluene diamine with 3,5-dimethylthio toluene diamine to produce polyurethanes having controlled reaction profiles and improved properties was known at the time of invention. This position is supported by the teachings of Presswood at columns 2-4. Presswood further discloses the relative reactivities of the specified chain extenders.

19.

Therefore, since it was known to employ blends of curing agents having different reactivities for the production of polyurethane golf ball covers and since it was known to employ diamines of the nature claimed by applicants to cure prepolymers, useful for producing golf ball covers, it would have been obvious to one of ordinary skill in the art to utilize the curing agent blend of Presswood with the prepolymer of Wu in accordance with the teachings of Isaac, so as

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to obtain a golf ball cover composition suitable for use with the wound cores of the primary references.

20.

Claims 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward ('324) in view of Watson et al ('102) and Isaac (568).

Ward discloses methods of covering golf ball cores, wherein a quantity of polyurethane yielding composition is placed in a mold half; a golf ball center is then placed in the mold half; a second mold half containing polyurethane yielding composition is then mated with the first mold half; and the composition is allowed to set sufficiently, so that the golf ball can be removed from the mold and allowed to cure. See figures and columns 3 and 4.

21.

Ward differs from applicants in that Ward is silent regarding the use of a blend of fast and slow reacting diamines to cure the prepolymer and the use of conveyors and alignment equipment to render the process continuous. With respect to the first difference, the concept of introducing the core into a molded, controlled-cure golf ball cover half, then mating the controlled-cure molded halves together to yield a fully covered golf ball was known at the time of

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invention. Watson et al disclose this concept and further disclose the interruption of the polymerization cycle to permit the manipulation of the mold halves. See column 1, lines 54+ and columns 2 and 3. Isaac also discloses the interruption of the polymerization cycle, through the use of blends of curing agents having different reactivities, so as to permit a center to be introduced into a semi-cured golf ball cover half which is then mated with the other half and cured. See abstract and columns 2 and 3.

22.

Therefore, since it was known to utilize differently reacting curing agents to control the polymerization cycle of polyurethane compositions suitable for producing golf ball covers, it would have been obvious to incorporate this step-wise method into the molding method of Ward. An advantage of the instant claimed process over Ward is that the center need not be physically held in place while the cover composition cures to the point that the core does not move from the center of the mold.

23.

With respect to the second difference, the position is taken under the provisions of MPEP 2144.03 that the use of conveyors and the attendant equipment or steps, necessary for alignment of the mold halves on conveyors to render the process continuous, was known at the time of invention. Therefore, it would have been obvious to one of ordinary skill in the art to utilize known methods of transport and alignment with the molding process of the prior art so as to render the process continuous or more automated.

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24.

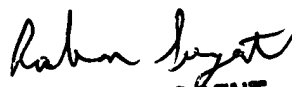
Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward ('324) in view of Watson et al ('102) and Isaac ('568) as applied to claims 18-28 above, and further in view of Ford et al ('280).

As aforementioned within paragraphs 20-23, the combined teachings of Ward, Watson et al, and Isaac are considered to render applicants' method obvious; however, the references are silent with respect to the step of precoating the core with prepolymer prior to introducing the core into the mold. However, Ford et al. disclose at column 2, lines 59-70 the precoating of golf ball cores with polyurethane prepolymer to assist in locating the core within the mold. Therefore, it would have been obvious to one of ordinary skill in the art to pre-coat the core of the primary references for the same reason.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

R. Sergent:jp

April 30, 1999


RABON SERGENT
PRIMARY EXAMINER